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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

ROSENBERGER, R

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 08/25/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/195,533

Applicant(s)

Nielsen

Examiner

Richard Rosenberger

Group Art Unit

2877



☒ Responsive to communication(s) filed on Jun 8, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-17, 24, 26-31, 37-48, 50, and 61-63 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17, 24, 26-31, 37-48, 50, and 61-63 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. The specification as amended by the amendment of June 8, 2000 is objected to as containing new matter. The last phrase of the first paragraph and the entire second paragraph added to page 9, found in the amendment on page 2, contains new matter. The specification as filed does not contain this disclosure.

2. The specification is objected to under 5 U.S.C. 112, first paragraph as not setting for the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains to make and use the same.

There is no clear disclosure in the specification as filed relating to the "dark field collection arrangement". There is no disclosure relating any structure or arrangement which would produce this. The mere mention of a "dark-field collecting arrangement" in claim 4 and "non-normal reflection" on page 9, lines 15-16 does not provide sufficient disclosure to make and use such.

There is also a lack of disclosure relating to the Normarski DIC detector. There is disclosed a Normarski prism (106) in both figures 1 and 2, but there is no disclosure relating to how and where the rest of the system may be. IN figure 1 the beamsplitter 105 may be intended to break off a part of the beam to direct it to the rest of the system, but the specification does not appear to state that this is the function of that beam splitter; indeed, the specification appear to give not function to beamsplitter 105 at all. Further, there appears to be no such element at all in the embodiment of figure 2 which can be assumed to be a part of a Normarski system;

in figure 2 the beam splitter 105 is used to direct light to the "optical lever" detector 117.

3. Claims 4, 8-10, 42, 43, 45, and 46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. See above.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6, 11, 13, 16, 17, 37, 41, 44, 47, 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenfeld et al (US 3,885,875) in view of Hercher (US 5,812,266).

Rosenfeld et al shows a light generating device (10) and an optical arrangement (13, 17) for receiving light from the light generating means (10) and imparting light (20) toward a specimen (21). There is a retro beam diversion

element (16) which diverts the retro beam from the optical element arrangement and a sensing device (26) for receiving and sensing retro beam position of the diverted beam. The sensing device (26) of Rosenfeld is disclosed as a "position sensor" (column 4, line 56). It would have been obvious to use other known and available position sensors; it is clear that the utility of the system is only in the detection of the position, and is not in the particular means used to detect the position. Hercher shows a system in which, like that of Rosenfeld et al, there is a position sensitive detector, and , like Rosenfeld et al, a ration is formed (compare column 6, lines 5-8 of Rosenfeld et al to column 7, lines 10-11 of Hercher). Hercher then states that the detector may be, among other known detectors, "a CD array". (column 7, line 13).

The diversion element (16) is a beam splitter.

The detector (26) can be an array of two detectors; see figure 4. Each of the plurality of detectors has a preamp (32, 33).

The light generating device (10) can be a laser (column 3, line 62).

The light(20 is directed substantially normally onto the specimen (21) (column 4, line 47).

As disclosed the scan line of Rosenfeld et al would scan the same line repeatedly. It would have been obvious to move the object laterally to scan other areas of the surface.

6. Claims 2-3, 5, 7, 12, 14-15, 24, 26-31, 38-40, and 48-50 rejected under 35 U.S.C. 103(a) as being unpatentable over Vaez-Iravani (US 5,798,829) in view of Rosenfeld et al (US 3,885,875).

It would have been obvious to replace the tilt-measuring system of Vaez-Iravani with other known tilt measuring arrangements, such as that of Rosenfeld et al. Vaez-Iravani shows that it is known to place an optical isolator in a system generally as claimed. Rosenfeld et al teaches that the precision of measurement can be adjusted (column 4, lines 59- 63), choosing an appropriate degree of accuracy would be within the skill of those in the art.

7. Korth (US 3,866,038) shows the use of a detector array as a sensor to detect the position of a light spot; see element 12 in figure 2. See also Kowalski et al (US 5,015,096) which has a "photodetector D which senses deflections of the reflected beam" (column 2, lines 48-49), which photodetector may be "a multiple diode array" (column 2, lines 67-68).

8. The comments concerning the use of a multi-element linear sensor have been considered; see the newly cited references.

The comment that Rosenfeld "merely discusses use of a magnifying glass" is noted. That reference, of course, says "magnifying *lens*", not "glass". Those in the art

would have found it obvious to use a magnifying lens, including a magnifying lens system, as appropriate to the application at hand.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

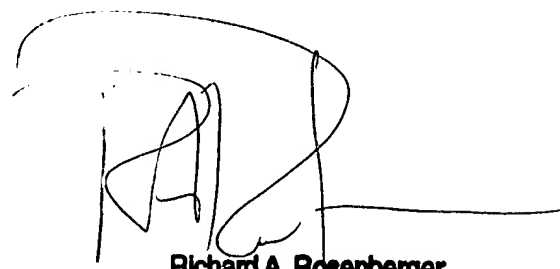
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger
23 August 2000



Richard A. Rosenberger
Primary Examiner